

Title (en)

APPARATUS FOR STABLE NANO EMULSIONS OF WATER IN DIESEL FUEL

Title (de)

VORRICHTUNG FÜR STABILE NANOEMULSIONEN VON WASSER IN DIESELKRAFTSTOFF

Title (fr)

APPAREIL POUR NANO-ÉMULSIONS STABLES D'EAU DANS DU CARBURANT DIESEL

Publication

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Application

**EP 21762139 A 20210826**

Priority

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Abstract (en)

[origin: WO2022049463A1] An apparatus for stable nano emulsion of water in diesel fuel, comprises a diesel fuel feeding unit (2), a water feeding unit (3), a magnetite nano-particles feeding unit (4); a mixing tank (7) in fluid communication with the diesel fuel feeding unit (2), with the water feeding unit (3) and with the magnetite nano-particles feeding unit (4); a recirculation conduit (8a, 8b, 8c, 8d) presenting opposite ends connected to the mixing tank (7). A pump (9) is placed on the recirculation conduit (8a, 8b, 8c, 8d) and is configured to recirculate a mixture comprising the diesel fuel (F), the water (W) and the magnetite nano-particles (MNP). A dynamic magnetic field generator (25) is operationally coupled to the recirculation conduit (8a, 8b, 8c, 8d) and is configured to generate a dynamic magnetic field inside at least a section of the recirculation conduit (8a, 8b, 8c, 8d) to activate the magnetite nano-particles.

CPC (source: EP US)

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